



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,572	07/10/2006	Nobuo Fujita	128602	4421
25944	7590	09/17/2010	EXAMINER	
OLIFF & BERRIDGE, PLC			RHEE, JANE J	
P.O. BOX 320850			ART UNIT	
ALEXANDRIA, VA 22320-4850			PAPER NUMBER	
			1795	
			NOTIFICATION DATE	
			DELIVERY MODE	
			09/17/2010	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com
jarmstrong@oliff.com

Office Action Summary	Application No.	Applicant(s)	
	10/585,572	FUJITA, NOBUO	
	Examiner	Art Unit	
	JANE RHEE	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/1/08, 7/10/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-6,9-12 in the reply filed on 8/23/10 is acknowledged. The traversal is on the ground(s) that all claims have the same special technical feature. This is not found persuasive because claims 7-8 have the special technical feature of decreasing the target set temperature when the electric conductivity at the target set temperature exceeds the target electric conductivity range.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,9-12 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ushio et al. (JP2003346845).

As to claim 1, Ushio et al. discloses a device for cooling a fuel cell (figure 1 number 20) that adjusts a temperature of the fuel cell to a target set temperature by supplying a coolant, comprising electric conductivity measuring means (figure 1 number 5a or 5b) for measuring an electric conductivity of the coolant, temperature means (figure 1 number 7) for measuring a temperature of the coolant, and means for estimating the electric conductivity at the target set temperature (figure 1 number 8)

Art Unit: 1795

based on the electric conductivity of the coolant, the temperature of the coolant, and a correlation between the temperature and the conductivity of the coolant, wherein based on a correlation between a parameter related to the temperature of the coolant and the electric conductivity of the coolant, when the electric conductivity at the target set temperature exceeds a target electric conductivity range, the parameter related to the temperature of the coolant is controlled so as to maintain the electric conductivity at the target set temperature within the target electric conductivity range (Figure 1).

As to claim 2, Ushio et al. discloses wherein the parameter related to the temperature of the coolant is at least one element selected from the group including the temperature of the coolant (figure 1 number 7).

As to claim 3, Ushio et al. discloses wherein the temperature of the coolant is controlled by changing at least one of the cooling degree of the coolant and the operation state of the fuel cell (figure 1 number 8).

As to claim 4, Ushio et al. discloses further comprising electric conductivity decreasing means for decreasing the electric conductivity of the coolant, wherein the parameter related to the temperature of the coolant is controlled based on the decrease quantity of the electric conductivity with the electric conductivity decreasing means (figure 1 number 8).

As to claim 5, Ushio et al. discloses comprising means for decreasing the target set temperature when the electric conductivity at the target set temperature exceeds the target electric conductivity range (figure 1 number 8).

Art Unit: 1795

As to claim 6, Ushio et al. discloses, further comprising means for increasing the target set temperature within a range in which the electric conductivity at the target set temperature does not exceed the target electric conductivity range (figure 1 number 8).

As to claim 9, Ushio et al. discloses wherein the temperature of the coolant is controlled by changing at least one of the cooling degree of the coolant and the operation state of the fuel cell (figure 1 number 8).

As to claims 10-12 Ushio et al. discloses further comprising electric conductivity decreasing means for decreasing the electric conductivity of the coolant, wherein the parameter related to the temperature of the coolant is controlled based on the decrease quantity of the electric conductivity with the electric conductivity decreasing means (figure 1 number 8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JANE RHEE whose telephone number is (571)272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jane Rhee/
Primary Examiner, Art Unit 1795